

<b>Bishop Concrete Plant</b>	)	<b>Departmental</b>
<b>Piscataquis County</b>	)	<b>Findings of Fact and Order</b>
<b>Brownville, Maine</b>	)	<b>Air Emission License</b>
<b>A-872-71-A-N</b>	)	<b>After-the-Fact</b>

After review of the air emissions license application, staff investigation reports and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 M.R.S.A., Section 344 and Section 590, the Department finds the following facts:

## **I. REGISTRATION**

### **A. Introduction**

Bishop Concrete Plant (Bishop Concrete), of Brownville, Maine has applied for an Air Emission License permitting the operation of emission sources associated with their crushed stone and gravel facility.

### **B. Emission Equipment**

Bishop Concrete is authorized to operate the following air emission units:

#### **Concrete Plant:**

<u><b>Equipment</b></u>	<u><b>Process Rate (cubic yards/hr)</b></u>	<u><b>Control Device</b></u>
Concrete Batch Plant	40	Baghouse

#### **Rock Crushers:**

<u><b>Equipment</b></u>	<u><b>Powered</b></u>	<u><b>Process Rate (ton/hr)</b></u>	<u><b>Control Device</b></u>	<u><b>Date of Manufacture</b></u>
Pioneer Jaw Crusher	Diesel #1	75	None	1982
Eastern Engineering Crushing Plant (jaw and cone crusher)	Electric	40	None	1957

#### **Electrical Generating Equipment:**

<u><b>Equipment</b></u>	<u><b>Maximum Capacity (lb/MMBtu)</b></u>	<u><b>Maximum Firing Rate (lb/gal)</b></u>	<u><b>Fuel Type, % Sulfur</b></u>
Diesel #1	0.55	4	Diesel, 0.05%

C. Application Classification

Bishop Concrete is classified as an existing source that is applying for its first air emission license, after the fact. The Department has determined the facility is a minor source and the application has been processed through Chapter 115 of the Department's regulations.

## II. BEST PRACTICAL TREATMENT (BPT)

A. Introduction

In order to receive a license the applicant must control emissions from each unit to a level considered by the Department to represent Best Practical Treatment (BPT), as defined in Chapter 100 of the Air Regulations. Separate control requirement categories exist for new and existing equipment as well as for those sources located in designated non-attainment areas. BPT for new sources and modifications requires a demonstration that emissions are receiving Best Available Control Technology (BACT), as defined in Chapter 100 of the Air Regulations. BACT is a top-down approach to selecting air emission controls considering economic, environmental and energy impacts.

B. Concrete Batch Plant

To meet the requirements of BPT for control of particulate matter (PM) emissions from the cement silo, particulate emissions shall be vented through a baghouse maintained for 99% removal efficiency. Visible emissions from the cement silo baghouse are limited to no greater than 10% opacity on a 6-minute block average basis except for no more than one 6-minute block average in a 1-hour period. The facility shall take corrective action if visible emissions from the baghouses exceed 5% opacity.

All components of the concrete batch plant shall be maintained so as to prevent PM leaks. Visible emissions from concrete batching operations shall not exceed 20% opacity on a 6-minute block average basis except for no more than one 6-minute block average in a 1-hour period.

C. Rock Crushers

Bishop Concrete operates three rock crushers. The Pioneer Jaw Crusher is a portable crusher, manufactured in 1982 with a process rate of 75 tons/hour. The Eastern Engineering Crushing Plant is a portable plant consisting of a jaw crusher and a cone crusher and screen. The unit was manufactured in 1957 with a process rate of 40 tons/hour.

The rock crushers are therefore not subject to EPA New Source Performance Standards (NSPS) Subpart OOO for Nonmetallic Mineral Processing Plants manufactured after 1983, with capacities greater than 150 tons/hour for portable plants and greater than 25 tons/hour for non-portable plants. The regulated

pollutant from the rock crushers is particulate emissions. To meet the requirements of BACT for control of particulate matter (PM) emissions from the rock crushers, Bishop Concrete shall control visible emissions to no greater than 10% opacity based on a 6-minute block average. Therefore, Bishop Concrete shall install, maintain and operate water sprays on all rock crushers as needed.

**D. Diesel Unit**

Bishop Concrete operates one diesel unit to power the Pioneer Jaw Crusher. The unit fires diesel fuel with a maximum sulfur content not to exceed 0.05% by weight, with a capacity of 0.55 lb/MMBtu.

BACT for Diesel Unit #1 is the following:

1. The use of diesel fuel with a maximum sulfur content of 0.05% by weight.
2. PM, PM<sub>10</sub>, NO<sub>x</sub>, CO and VOC emission limits based on EPA AP-42 data dated 10/96 for diesel units less than 600 hp.
3. Visible emissions from Diesel Unit #1 shall not exceed 30% opacity on a 6-minute block average basis, except for no more than two 6-minute block averages in a 3-hour period.

**E. Stock Piles and Roadways**

BACT for all potential sources of fugitive PM emissions, including material stockpiles and unpaved roadways, shall be controlled by wetting with water, with calcium chloride, or other methods as approved by the Bureau of Air Quality to prevent visible emissions in excess of 20% opacity, except for no more than five minutes in any 1-hour period. Compliance shall be determined by an aggregate of the individual fifteen second opacity observations which exceed 20 percent an any 1-hour.

**F. Annual Emission Restrictions**

Bishop Concrete shall be restricted to the following annual emissions on a 12 month rolling total. Annual emissions were calculated based on continuous operation of Diesel Unit #1.

**Total Allowable Annual Emission for the Facility**  
(used to calculate the annual license fee)

<u><b>Pollutant</b></u>	<u><b>Tons/Year</b></u>
PM	0.75
PM <sub>10</sub>	0.75
SO <sub>2</sub>	0.13
NO <sub>x</sub>	10.7
CO	2.29
VOC	0.85

### **III.AMBIENT AIR QUALITY ANALYSIS**

According to the Maine Regulations Chapter 115, the level of air quality analyses required for a renewal source shall be determined on a case-by case basis. Based on the information in the file, and the similarity to existing sources, Maine Ambient Air Quality Standards (MAAQS) will not be violated by this source.

### **ORDER**

Based on the above Findings and subject to conditions listed below, the Department concludes that the emissions from this source:

- will receive Best Practical Treatment,
- will not violate applicable emission standards,
- will not violate applicable ambient air quality standards in conjunction with emissions from other sources.

The Department hereby grants Air Emission License A-872-71-A-N subject to the following conditions:

### **STANDARD CONDITIONS**

- (1) Employees and authorized representatives of the Department shall be allowed access to the licensee's premises during business hours, or any time during which any emissions units are in operation, and at such other times as the Department deems necessary for the purpose of performing tests, collecting samples, conducting inspections, or examining and copying records relating to emissions (Title 38 MRSA §347-C).
- (2) The licensee shall acquire a new or amended air emission license prior to commencing construction of a modification, unless specifically provided for in Chapter 115.
- (3) Approval to construct shall become invalid if the source has not commenced construction within eighteen (18) months after receipt of such approval or if construction is discontinued for a period of eighteen (18) months or more. The Department may extend this time period upon a satisfactory showing that an extension is justified, but may condition such extension upon a review of either the control technology analysis or the ambient air quality standards analysis, or both.
- (4) The licensee shall establish and maintain a continuing program of best management practices for suppression of fugitive particulate matter during any period of construction, reconstruction, or operation which may result in fugitive

- dust, and shall submit a description of the program to the Department upon request.
- (5) The licensee shall pay the annual air emission license fee to the Department, calculated pursuant to Title 38 M.R.S.A. §353.
- (6) The license does not convey any property rights of any sort, or any exclusive privilege.
- (7) The licensee shall maintain and operate all emission units and air pollution systems required by the air emission license in a manner consistent with good air pollution control practice for minimizing emissions.
- (8) The licensee shall maintain sufficient records to accurately document compliance with emission standards and license conditions and shall maintain such records for a minimum of six (6) years. The records shall be submitted to the Department upon written request.
- (9) The licensee shall comply with all terms and conditions of the air emission license. The filing of an appeal by the licensee, the notification of planned changes or anticipated noncompliance by the licensee, or the filing of an application by the licensee for a renewal of a license or amendment shall not stay any condition of the license.
- (10) The licensee may not use as a defense in an enforcement action that the disruption, cessation, or reduction of licensed operations would have been necessary in order to maintain compliance with the conditions of the air emission license.
- (11) In accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department, the licensee shall:
- (i) perform stack testing to demonstrate compliance with the applicable emission standards under circumstances representative of the facility's normal process and operating conditions:
    - a. within sixty (60) calendar days of receipt of a notification to test from the Department or EPA, if visible emissions, equipment operating parameters, staff inspection, air monitoring or other cause indicate to the Department that equipment may be operating out of compliance with emission standards or license conditions; or
    - b. pursuant to any other requirement of this license to perform stack testing.

- (ii) install or make provisions to install test ports that meet the criteria of 40 CFR Part 60, Appendix A, and test platforms, if necessary, and other accommodations necessary to allow emission testing; and
  - (iii) submit a written report to the Department within thirty (30) days from date of test completion.
- (12) If the results of a stack test performed under circumstances representative of the facility's normal process and operating conditions indicate emissions in excess of the applicable standards, then:
  - (i) within thirty (30) days following receipt of such test results, the licensee shall re-test the non-complying emission source under circumstances representative of the facility's normal process and operating conditions and in accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department; and
  - (ii) the days of violation shall be presumed to include the date of stack test and each and every day of operation thereafter until compliance is demonstrated under normal and representative process and operating conditions, except to the extent that the facility can prove to the satisfaction of the Department that there were intervening days during which no violation occurred or that the violation was not continuing in nature; and
  - (iii) the licensee may, upon the approval of the Department following the successful demonstration of compliance at alternative load conditions, operate under such alternative load conditions on an interim basis prior to a demonstration of compliance under normal and representative process and operating conditions.
- (13) Notwithstanding any other provisions in the State Implementation Plan approved by the EPA or Section 114(a) of the CAA, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any statute, regulation, or Part 70 license requirement.
- (14) The licensee shall maintain records of malfunctions, failures, downtime, and any other similar change in operation of air pollution control systems or the emissions unit itself that would affect emission and that is not consistent with the terms and conditions of the air emission license. The licensee shall notify the Department within two (2) days or the next state working day, whichever is later, of such occasions where such changes result in an increase of emissions. The licensee shall report all excess emissions in the units of the applicable emission limitation.
- (15) Upon written request from the Department, the licensee shall establish and maintain such records, make such reports, install, use and maintain such monitoring equipment, sample such emissions (in accordance with such methods,

at such locations, at such intervals, and in such a manner as the Department shall prescribe), and provide other information as the Department may reasonably require to determine the licensee's compliance status.

## **SPECIFIC CONDITIONS**

### **(16) Concrete Batch Plant**

- (i) Particulate emissions from the cement silo shall be vented through a baghouse and all components of the batch plant shall be maintained so as to prevent PM leaks. [MEDEP Chapter 115, BPT]
- (ii) To document maintenance of the cement silo baghouse, the licensee shall keep a maintenance log recording the date and location of all bag failures as well as all routine maintenance. The maintenance log shall be kept on-site at the concrete batch plant location. [MEDEP Chapter 115, BPT]
- (iii) Opacity from the cement silo baghouse is limited to no greater than 10% on a 6-minute block average basis, except for no more than one 6-minute block average in a 1-hour period. Bishop Concrete shall take corrective action if visible emissions from the baghouse exceed 5% opacity. [MEDEP Chapter 101]
- (iv) PM emissions from the concrete batching operation shall be controlled so as to prevent visible emissions in excess of 20% opacity on a 6-minute block average basis, except for no more than one 6-minute block average in a 1-hour period. [MEDEP Chapter 101]

### **(17) Rock Crushers**

- (i) Bishop Concrete shall install, operate and maintain water sprays as needed for particulate control on the rock crushers. If they have not already been installed, water sprays shall be installed on all rock crushers before the facility's spring 2004 start-up date. Visible emissions from the crushers shall be limited to no greater than 10% opacity on a six (6) minute block average basis [MEDEP Chapter 115, BACT and MEDEP Chapter 101].
- (ii) The crushers shall not be attached or clamped via cable, chain, turnbuckle, bolt, or other means (except electrical connections) to any anchor, slab, or structure (including bedrock) that must be removed prior to transportation [40 CFR 60, Subpart OOO, definition of portable plant].
- (iii) Bishop Concrete shall maintain a log detailing the downtime and maintenance activities on the water spray nozzles. The maintenance log shall be located at the facility whenever the facility is in operation [MEDEP Chapter 115, BACT].
- (iv) Bishop Concrete shall maintain a log detailing and quantifying the hours of operation on a daily basis for each of the rock crushers. The operation log shall be located at the facility whenever the facility is in operation [MEDEP Chapter 115, BACT].

(18) Diesel Unit #1

- (i) Diesel Unit #1 shall fire diesel fuel with a maximum sulfur content of 0.05% by weight. Compliance shall be demonstrated through receipts showing the sulfur content of the fuel, or certifying it as on-road diesel. [MEDEP Chapter 115, BACT]
- (ii) Emissions from Diesel Unit #1 shall not exceed the following:

**Diesel Unit #1 Emission Limits**

<b>Pollutant</b>	<b>Emission Limit (lb/hr)</b>
<b>PM</b>	0.18
<b>PM<sub>10</sub></b>	0.18
<b>SO<sub>2</sub></b>	0.03
<b>NO<sub>x</sub></b>	2.43
<b>CO</b>	0.53
<b>VOC</b>	0.20

[MEDEP Chapter 115, BACT]

Compliance shall be demonstrated on request of the Department through stack testing in accordance with the appropriate method found in 40 CFR Part 60, Appendix A.

- (iii) Visible emissions from Diesel Unit #1 shall not exceed 30% opacity on a 6-minute block average basis, except for no more than two 6-minute block averages in a 3-hour period [MEDEP Chapter 101].

(19) Stockpiles and Roadways

Potential sources of fugitive PM emissions including material stockpiles and unpaved roadways shall be controlled by wetting with water, with calcium chloride, or other methods as approved by the Bureau of Air Quality to prevent visible emissions in excess of 20% opacity, except for no more than five minutes in any 1-hour period. Compliance shall be determined by an aggregate of the individual 15-second opacity observations which exceed 20 percent in any one hour [MEDEP Chapter 115, BACT and MEDEP Chapter 101].

(20) Equipment Relocation [MEDEP Chapter 115]

- (i) Bishop Concrete shall notify the Bureau of Air Quality, by a written notification at least 10 days in advance, prior to relocation of any equipment carried on this license. The notification shall be sent to:

Attn: Relocation Notice  
Maine DEP Bureau of Air Quality  
17 State House Station  
Augusta, ME 04333-0017

The notification shall include the address of the equipment's new location and the license number pertaining to the relocated equipment.



**Bishop Concrete Plant  
Piscataquis County  
Brownville, Maine  
A-872-71-A-N**

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- (ii) Written notification shall also be made to the municipality where the equipment will be relocated, except in the case of an unorganized territory where notification will be made to the respective county commissioners.
- (21) Bishop Concrete shall keep a copy of this Order on site, and have the operator(s) be familiar with the terms of this Order. [MEDEP Chapter 115, BACT]
- (22) Bishop Concrete shall pay the annual air emission license fee within 30 days of December 31 of each year. Pursuant to Title 38 MRSA §353-A, failure to pay this annual fee in the stated timeframe is sufficient grounds for revocation of the license under 38 MRSA §341-D, subsection 3.
- (23) The term of this Order shall be for five (5) years from the signature below. [MEDEP Chapter 115]

DONE AND DATED IN AUGUSTA, MAINE THIS                      DAY OF                      2003.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: \_\_\_\_\_  
DAWN R. GALLAGHER, COMMISSIONER

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: September 19, 2003

Date of application acceptance: October 27, 2003

Date filed with the Board of Environmental Protection: \_\_\_\_\_

This Order prepared by Rachel E. Pilling, Bureau of Air Quality